

CLAIMS

What is claimed is:

1. A disc drive which records data on a disc, the disc drive comprising:
 - a clock generator which generates a clock signal that is synchronized with a transmission speed of a received signal;
 - a pickup unit which records recording data corresponding to the received signal on the disc; and
 - a recording processing unit which converts the received signal into the recording data by synchronizing with a clock signal generated from the clock generator into recording data and provides the converted recording data to the pickup unit.
2. The disc drive of claim 1, wherein the disc drive further comprises a decoder which detects an identifying signal indicating a transmission speed of the received signal, provides the detected identifying signal to the clock generator, transmits the received signal to the recording processing unit, and the clock generator generates the clock signal that is synchronized with the identifying signal.
3. The disc drive of claim 2, wherein the identifying signal is a periodic signal.
4. The disc drive of claim 1, wherein the recording processing unit comprises an encoder which encodes the received signal.
5. The disc drive of claim 1, wherein the clock generator comprises a phase locked loop circuit.
6. The disc drive of claim 1, wherein the disc drive further comprises:
 - a spindle motor which rotates the disc; and
 - a spindle motor driving unit which controls a rotation speed of the spindle motor by using the clock signal generated from the clock generator.
7. The disc drive of claim 2, wherein the disc drive further comprises:
 - a spindle motor which rotates the disc; and

a spindle motor driving unit which controls a rotation speed of the spindle motor by using the clock signal generated from the clock generator.

8. The disc drive according to claim 1, wherein the received signal is from a channel receiver without an additional medium between the channel receiver and the disc drive.

9. A disc drive which records data on a disc, the disc drive comprising:
a pickup unit which records recording data corresponding to a received signal on the disc; and

a recording processing unit which converts the received signal into the recording data by synchronizing with a transmission speed of the received signal and provides the recording data to the pickup unit.

10. The disc drive of claim 9, wherein the disc drive further comprises a decoder which detects an identifying signal capable of indicating the transmission speed of the received signal and transmits the identifying signal to the recording processing unit.

11. The disc drive of claim 10, wherein the identifying signal is a periodic signal.

12. The disc drive of claim 10, wherein the disc drive further comprises:
a spindle motor which rotates the disc; and
a spindle motor driving unit which controls a rotation speed of the spindle motor by synchronizing with the identifying signal.

13. The disc drive of claim 11, wherein the disc drive further comprises:
a spindle motor which rotates the disc; and
a spindle motor driving unit which controls a rotation speed of the spindle motor by synchronizing with the identifying signal.

14. The disc drive according to claim 9, wherein the received signal is from a channel receiver without an additional medium between the channel receiver and the disc drive.

15. A method of controlling a recording speed of a disc drive capable of recording data on a disc, comprising:

generating a clock signal that is synchronized with a transmission speed of a received signal;

converting the received signal into recording data that is to be recorded on the disc by synchronizing with the clock signal; and

recording the converted recording data on the disc.

16. The method of claim 15, wherein the generating the clock signal comprises:

detecting an identifying signal capable of indicating the transmission speed of the received signal; and

generating a clock signal that is synchronized with the identifying signal.

17. The method of claim 16, wherein the identifying signal is a periodic signal.

18. The method of claim 15, further comprising:

controlling a rotation speed of the spindle motor that rotates the disc by synchronizing with the clock signal.

19. The method according to claim 15, wherein the received signal is from a channel receiver without an additional medium between the channel receiver and the disc drive.

20. A computer readable medium encoded with processing instructions implementing a method of controlling a recording speed in a disc drive, the method comprising:

generating a clock signal that is synchronized with a transmission speed of a received signal;

converting the received signal into recording data that is to be recorded on the disc by synchronizing with the clock signal; and

recording the converted recording data on the disc.

21. The computer readable medium according to claim 20, wherein the generating the clock signal comprises:

detecting an identifying signal capable of recognizing the transmission speed of the received signal; and

generating a clock signal that is synchronized with the identifying signal.

22. The computer readable medium according to claim 20, wherein said method further comprises:

controlling a rotation speed of the spindle motor that rotates the disc by synchronizing with the clock signal.

23. A method of controlling a speed of a disc drive, comprising:
transmitting an identifying signal of a transmission speed of an other transmitted signal;
receiving the identifying signal and the other transmitted signal; and
generating a clock signal synchronized with the transmission speed of the other transmitted signal.

24. A method of controlling a speed of a disc drive according to claim 23, further comprising:

converting the other transmitted signal into data synchronized with the clock signal.

25. An apparatus for controlling a speed of a disc drive, comprising:
a transmitter to transmit an identifying signal and an other transmitted signal, wherein the identifying signal identifies a transmission speed of the other transmitted signal;
a receiver to receive the identifying signal and the other transmitted signal; and
a generator to generate a clock signal synchronized with the transmission speed of the other transmitted signal,

26. An apparatus for controlling a speed of a disc drive according to claim 25, further including a converter to convert the other transmitted signal into data synchronized with the clock signal.

27. A computer readable medium encoded with processing instructions for implementing a method of controlling a recording speed in a disc drive, the method comprising:
transmitting an identifying signal of a transmission speed of an other transmitted signal;
receiving the identifying signal and the other transmitted signal; and
generating a clock signal synchronized with the transmission speed of the other transmitted signal.

28. The computer readable medium of claim 25, wherein said method further comprises:

converting the other transmitted signal into data synchronized with the clock signal.